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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,486	09/23/2003	Roger J. Jellicoe	CS21782RL	2945
20280	7590	12/28/2005	EXAMINER	
MOTOROLA INC 600 NORTH US HIGHWAY 45 ROOM AS437 LIBERTYVILLE, IL 60048-5343			YACOB, SISAY	
			ART UNIT	PAPER NUMBER
			2635	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,486

Applicant(s)

JELICOE, ROGER J.

Examiner

Sisay Yacob

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1 The application of Jellicoe "Keypad for an electronic device" filed on September 23, 2003 been examined.

Claims 1- 21 are pending

Claim Rejections - 35 USC § 102

2 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3 Claims 1 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent of Yu et al., (5,852,414).

4 As to claims 1 and 12, Yu et al., discloses an electronic device with a keypad on a substantially planar surface or region (Abs; See figures 1-3) comprising a first key with an indented edge in the substantially planar surface or region (Key with Items 5, E, N and W of figure 2), a first protruded edge in the substantially planar surface (Edge below item N of figure 2), a first alphanumeric label associated with the first key (Item 5 of figure 2), and a second alphanumeric label associated with the first protruded edge of the first key (Item N of figure 2),

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a second key with a protruded edge in the substantially planar surface adjacent to the indented edge of the first key (Key with items 2, B, K and T of figure 2) and a third key with an indented edge in the substantially planar surface adjacent to the first protruded edge of the first key (Key with items 8, H, Q and Z of figure 2).

Rejections - 35 USC § 103

5 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6 Claims 2,3 and 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent Yu et al. (5,852,414).

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7 As to claims 2 and 13, an electronic device keypad according to claims 1 and 12, further, Yu et al., discloses the first key further comprises a second protruded edge in the substantially planar surface (Edge below item E of figure 2), a third protruded edge in the substantially planar surface (Edge below item W of figure 2), however, Yu et al., does not expressly disclose an angle formed by lines between a center of the first protruded edge and centers of the second protruded edge and the third protruded edge is greater than approximately forty-five degrees.

It would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the electronic device of Yu et al., by adjusting the angle formed by lines between a center of the first protruded edge and centers of the second protruded edge and the third protruded edge, in order to have an angle formed by lines between a center of the first protruded edge and centers of the second protruded edge and the third protruded edge is greater than approximately forty-five degrees, because Yu et al., discloses different keys that have different angle formed by lines between the first protruded edge and the second protruded edge and the third protruded edge (Items 0-9 of figure 2; See Num Lock key of figure 2) and one of ordinary skill in the art recognizes an angle may be formed by lines between a center of the first protruded edge and centers of the second protruded edge and the third protruded edge that at various degrees.

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8 As to claims 3 and 14, an electronic device keypad according to claims 2 and 13, further, Yu et al., discloses the angle is less than approximately ninety degrees (Items 0-9 of figure 2; Num Lock key of figure 2).

9 As to claim 15, a keypad according to claim 13, further, Yu et al., discloses a fourth key with an indented edge (Item 1 of figure 2) in the substantially planar region proximate to the second protruded edge of the first key (Item E of figure 2).

10 As to claim 16, a keypad according to claim 15, further, Yu et al., discloses the first key, the second key, the third key, and the fourth key have approximately the same shape (See figure 2).

11 As to claim 17, a keypad according to claim 12, further, Yu et al., discloses the first key, the second key, and the third key have approximately the same shape (See figure 2).

12 As to claim 18, a keypad according to claim 12, further, Yu et al., discloses a first label associated with the first key (Item 5 of figure 2).

13 As to claim 19, a keypad according to claim 18, further, Yu et al., discloses the first label represents a numeric character (Item 5 of figure 2).

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14 As to claim 20, a keypad according to claim 18, further, Yu et al., discloses a second label associated with the first key (Item N of figure 2).

15 As to claim 21, a keypad according to claim 20, further, Yu et al., discloses the second label represents a non-numeric character (Item N of figure 2).

16 Claims 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent Yu et al. (5,852,414) in view of US patent of Schneider-Hufschmidt et al., (6,130,628).

17 As to claim 4, an electronic device according to claim 1, further, Yu et al., does not expressly disclose a priority routine that enters a character associated with the first alphanumeric label when the first key is held for less than a first toggle period. In the same field of endeavor, Schneider-Hufschmidt et al., discloses a priority routine for electronic device that enters a character associated with an alphanumeric label when the key is held for less than a first toggle period (Col. 1, lines 22-24).

It would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the electronic device of Yu et al., by incorporating a priority routine for electronic device that enters a character associated with an alphanumeric label when the key is held for predetermined toggle period, as taught by Schneider-Hufschmidt et al., in order to have a priority routine that enters a character associated with the first alphanumeric label when the first key

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is held for less than a first toggle period, because Yu et al., discloses keys that have different keys that have multiple alphanumeric label and user may enter any of the characters that are associated with the alphanumeric labels and Schneider-Hufschmidt et al., discloses keys that are labeled with multiple alphanumeric characters and enter different characters based on the time the key is kept pressed.

18 As to claim 5, an electronic device according to claim 4, further, Yu et al., discloses the first alphanumeric label represents a number (Item 2 of figure 2).

19 As to claim 6, an electronic device according to claim 4, further, Schneider-Hufschmidt et al., discloses the priority routine enters a character associated with the second alphanumeric label when the first key is held for more than the first toggle period (Col. 2, lines 29-36; Col. 4, lines 29-35).

20 As to claim 7, an electronic device according to claim 6, further, Yu et al., discloses the second alphanumeric label represents a non-numeric character (Item N of figure 2).

21 As to claim 8, an electronic device according to claim 7, further, Yu et al., discloses the second alphanumeric label represents a letter (Item N of figure 2).

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22 As to claim 9, an electronic device according to claim 7, however, the combination of Yu et al., and Schneider-Hufschmidt et al., does not expressly disclose the second alphanumeric label represents a space.

It would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the combination of Yu et al., and Schneider-Hufschmidt et al., by incorporating an alphanumeric label represents a space, in order to have the second alphanumeric label represents a space, because Yu et al., and Schneider-Hufschmidt et al., disclose alphanumeric labels that have different characters that allow user to enter the desire character and one of ordinary skill in the art recognizes a space may be incorporated to allow users to enter space between words and the alphanumeric label represents a space may be assigned to any of the second, third or fourth characters that are assigned to each key.

23 As to claim 10, an electronic device according to claim 4, further, Schneider-Hufschmidt et al., discloses the priority routine enters a character associated with the second alphanumeric label when the first key is held for less than a second toggle period that is greater than the first toggle period (Col. 2, lines 29-36; Col. 4, lines 29-35).

24 As to claim 11, an electronic device according to claim 10, further, Schneider-Hufschmidt et al., discloses the priority routine enters a character associated with a third alphanumeric label when the first key is held for more than the second toggle period (Col. 2, lines 29-36; Col. 4, lines 29-35).

Conclusion

25 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following cited arts are further to show the state of art related to keypad for an electronic device.

In the US patent of (6,765,556) discloses the ability to enter letters on a phone keyboard by using two keys for each letter.

In the US publication of (20040070522) discloses one-handed data entry keyboard for minimized finger movement based on a keyboard having less than 26 keys.

In the US patent of (5,007,008) discloses an apparatus comprises a plurality of pressable keys for selecting key actions, each key of the plurality having at least two possible key actions and symbols representing each action, and means for determining which of the key actions is selected to be performed.

26 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sisay Yacob whose telephone number is (571) 272-8562. The examiner can normally be reached on Monday through Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (571) 272-3068. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sisay Yacob

12/22/2005

S.Y.



TIMOTHY EDWARDS JR.
PRIMARY EXAMINER